UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/704,936	11/02/2000	Lee A Neitzel	06005/35528	4816

7590   12/09/2008

Roger A Heppermann
Marshall O'Toole Gerstein Murray & Borun
6300 Sears Tower
233 South Wacker Drive
Chicago, IL 60606-6402

EXAMINER
LEE, ANDREW CHUNG CHEUNG

ART UNIT	PAPER NUMBER
2419	

MAIL DATE	DELIVERY MODE
12/09/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	09/704,936	NEITZEL ET AL.
	Examiner	Art Unit	
	Andrew C. Lee	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 August 2008*.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-6,8-18,22-32,34-41,43-50 and 52-57* is/are pending in the application.
  4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1,3-6,8-18,22-32,34-41,43-50 and 52-57* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  a)☐ All   b)☐ Some * c)☐ None of:
    1.☐ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____ .
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/18/2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

Response to Amendment

1.   Claims 1, 3 – 6, 8 – 18, 22 – 32, 34 – 41, 43 – 50, 52 – 57 are pending.

Claims 2, 7, 19, 20, 21, 33, 42, 51 had been canceled.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described
> as set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

3.   Claims 1, 3 – 6, 8 – 18, 22 – 32, 34 – 41, 43 – 50, 52 – 57 are rejected

under 35 U.S.C. 103(a) as being unpatentable over Liebowitz et al. (US

5812545) in view of Toporek et al. (US 6460085 B1).

Regarding claims 1, 44, Liebowitz et al. disclose a method of transmitting

data through a communication link having a bandwidth using a plurality of

communication connections ("prioritizes data into bursts using a fragmentation

protocol, and organizes bursts in at least one of a plurality of lots constituting a

time division multiple access (TDMA) frame,..and dynamic assignment of slots

depends on the committed information rates (CIR)" interpreted as a bandwidth

using a plurality of communication connections; col. 2, lines 40 – 62, Fig. 7B, Fig.

2, col. 5, lines 58 – 64); the method comprising the steps of: establishing a

worker object for each one of the communication connections ("creates an

outgoing data queue corresponding to each user access device for storing data

received therefrom via a corresponding Frame Handler module" interpreted as

establishing a worker object for each one of the communication connections; Fig.

3, Fig. 4, col. 4, lines 35 – 50); distributing the data amongst the worker objects

("modules to support different formats and a multiplicity of communication ports,

..creates an outgoing data queue corresponding to each user access device for

storing data received therefrom" interpreted as distributing the data amongst the

worker objects; Fig. 3, Fig. 4, col. 4, lines 32 – 47); forming messages using the

distributed data within each worker object and a parameter of that worker object

("collection of fragments is called the payload" interpreted as forming messages

using the distributed data within each worker object, and "payload header which

identifies the location of each fragment" interpreted as a parameter of that worker

object; col. 4, lines 52 – 67); and

Liebowitz et al. also disclose allocating a predetermined portion of the

bandwidth to each of the plurality of communication connections ("data queue is

preferably assigned its own CIR" interpreted as allocating a predetermined

portion of the bandwidth to each of the plurality of communication connections;

Fig. 7B, col. 5, lines 1 – 37; "the port CIR is a guaranteed bandwidth from the

port" also correlates to allocating the predetermined portion of the bandwidth to

each of the plurality of communication connections; col. 16, lines 47 – 53) and

setting a message size parameter ("the size of the burst buffer is set by the

network-wide parameter, 'packet.length'"; col. 4, lines 66 – 68; "formats queue

size information, as well as stream request information" correlates to setting a

message size parameter; col. 6, lines 27 – 33) and a time between calls

parameters for each of the plurality of communication connections ("sends a

timing indicator to TMC indicating the precise time that it can transmit a burst; at

specified times of transmission; silence intervals in voice conversations"

interpreted as a time between calls parameters; col. 5, lines 50 – 67; col. 6, lines

46 – 51; col. 15, lines 21 – 28).

Liebowitz et al. do not disclose explicitly delivering the messages formed

within each worker object to an underlying layer of the plurality of communication

connections so that each communication connection uses no more than a

predetermined portion of the bandwidth.

Toporek et al. teach delivering the messages to an underlying layer of the

plurality of communication connections so that each communication connection

uses no more than a predetermined portion of the bandwidth ("the information

goes through the transport layer (e.g. TCP) and then through the IP layer which

is the networking layer….." interpreted as delivering the messages to an

underlying layer of the plurality of communication connections so that each

communication connection uses no more than a predetermined portion of the

bandwidth; Fig. 2, col. 10, lines 21 – 67; col. 17, lines 34 – 52).

Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was made to modify the teachings of Liebowitz et al. to

include the features of delivering the messages to an underlying layer of the

plurality of communication connections so that each communication connection

uses no more than a predetermined portion of the bandwidth as taught by

Toporek et al. in order to provide a method for managing memory for buffering information communicated over an internet connection established across a satellite link (as suggested by Toporek et al., see col. 3, lines 7 – 10).

Regarding Claim 3, Liebowitz et al. disclose the method claimed wherein the step of allocating the predetermined portion of the bandwidth to each of the plurality of communication connections ("data queue is preferably assigned its own CIR" correlates to allocating a predetermined portion of the bandwidth to each of the plurality of communication connections; Fig. 7B, col. 5, lines 1 – 37; "the port CIR is a guaranteed bandwidth from the port" also correlates to allocating the predetermined portion of the bandwidth to each of the plurality of communication connections; col. 16, lines 47– 53) including the step of allocating different predetermined portions of the bandwidth to two of the plurality of communication connections ("a stream request is a request for a guaranteed amount of bandwidth, stream requests are usually made on behalf of voice and video calls" interpreted as allocating different predetermined portions of the bandwidth to two of the plurality of communication connections; col. 5, lines 58 – 62).

Regarding Claim 4, Liebowitz et al. disclose the method claimed wherein the step of allocating the predetermined portion of the bandwidth to each of the plurality of communication connections including the step of setting a time between calls parameter for each of the plurality of communication connections

("data queue is preferably assigned its own CIR" interpreted as allocating a

predetermined portion of the bandwidth to each of the plurality of communication

connections; Fig. 7B, col. 5, lines 1 – 37; "the port CIR is a guaranteed

bandwidth from the port" also interpreted as allocating the predetermined portion

of the bandwidth to each of the plurality of communication connections; col. 16,

lines 47 – 53; "sends a timing indicator to TMC indicating the precise time that it

can transmit a burst; at specified times for transmission; silence intervals in voice

conversations" interpreted as a time between calls parameters; col. 5, lines 50 –

67; col. 6, lines 46 – 51; col.15, lines 21 – 28).

Regarding claims 5, 36, Liebowitzet al. disclose the method, system

claimed wherein the step of allocating the predetermined portion of the

bandwidth to each of the plurality of communication connections including the

step of setting a message size parameter for each of the plurality of

communication connections ("data queue is preferably assigned its own CIR"

interpreted as allocating a predetermined portion of the bandwidth to each of the

plurality of communication connections; Fig. 7B, col. 5, lines 1 – 37; "the port

CIR is a guaranteed bandwidth from the port" also interpreted as allocating the

predetermined portion of the bandwidth to each of the plurality of communication

connections; col.16, lines 47 – 53; "the size of the burst buffer is set by the

network-wide parameter, 'packet.length'"; col. 4, lines 66 – 68; "formats queue

size information, as well as stream request information" interpreted as setting a

message size parameter; col. 6, lines 27 – 33).

Regarding claims 6, 28, 37, 45, 54, Liebowitz et al. disclose the method, system claimed wherein the step of allocating the predetermined portion on the bandwidth to each of the plurality of communication connections including the step of setting, a sending buffer size for each of the plurality of communication connections ("data queue is preferably assigned its own CIR" interpreted as allocating a predetermined portion of the bandwidth to each of the plurality of communication connections; Fig. 7B, col. 5, lines 1 – 37; "the port CIR is a guaranteed bandwidth from the port" also correlates to allocating the predetermined portion of the bandwidth to each of the plurality of communication connections; col. 16, lines 47 – 53; "size of the burst buffer" interpreted as sending buffer size for each of the plurality of communication connections; col. 4, lines 63 – 67).

Regarding claims 8, 18, Liebowitz et al. disclose the method claimed wherein the step of establishing the worker object for each one of the plurality of communication connections including the step of using the worker object to instantiate one of the plurality of communication connections ("creates an outgoing data queue corresponding to each user access device for storing data received therefrom via a corresponding Frame Handler module, and "stores real time data from the outgoing data queues associated with ports configured to receive real time data in FIFO" interpreted as establishing the worker object for each one of the plurality of communication connections including the step of

using the worker object to instantiate one of the plurality of communication

connections; Fig. 3, Fig. 4, col. 4, lines 35 – 50).

Regarding claim 9, Liebowitz et al. disclose the method claimed further

comprising the step of partitioning the data to form a plurality of partitioned data

streams prior to distributing the data amongst the worker ("break each frame into

smaller segments called fragments and stores as many fragments as possible in

a burst buffer" interpreted as partitioning the data to form a plurality of partitioned

data streams prior to distributing the data amongst the worker; Fig. 3, Fig. 4, col.

4, lines 51 – 56).

Regarding claims 10, 31, 46, 47, 50, Liebowitz et al. disclose the

method, system claimed wherein the step of partitioning the data to form a

plurality of partitioned data streams prior to distributing the data amongst the

worker objects including the step of partitioning the data based on a type of data

("real time data and non real time data" interpreted as partitioning the data based

on a type of data; col. 5, lines 7 – 22).

Regarding claims 11, 21, 48, Liebowitz et al. disclose claimed wherein

the step of partitioning the data to form the plurality of partitioned data streams

includes the step of establishing a one-to-one corresponding between the

plurality of partitioned data streams and the worker objects (col. 5, lines 18 – 28,

"point-to-point connection"; col. 16, lines 40 – 46)

Regarding claims 12, 22, Liebowitz et al. disclose the method of claimed wherein the step of distributing the data amongst the worker objects including the step of transferring a subset of the data to one of the worker objects in response to a request for data from the one worker object ("all data streams share the burst buffer regardless of whether they contain voice, video or data" correlates to transferring a subset of the data to one of the worker objects in response to a request for data from the one worker object; column 16, lines 16 – 21; "processing data flow and functions"; column 4, lines 15 – 24, "via software modules called agents"; column 8, lines 34 – 57, correlates to worker objects).

Regarding claims 13, 23, 30, Liebowitz et al. disclose the method of claimed wherein the step of distributing the data amongst the worker objects including the step of using a data transmission object ("processing data flow and functions performed, and Fragment Assembler/ Disassembler (FAD)" correlates to distributing the data amongst the worker objects including the step of using a data transmission object; column 4, lines 15 – 50; "processing data flow and functions"; column 4, lines 15 – 24, "via software modules called agents"; column 8, lines 34 – 57, correlates to worker objects).

Regarding claims 14, 24, 25, 43, 52, Liebowitz et al. disclose the method, system of claimed wherein the step of forming the messages using the distributed data within each worker object including the step of forming the

messages within each worker object using a parameter of that worker object that

controls the size of the messages (element "frame.length" correlates to forming

the messages within each worker object using a parameter of that worker object

that controls the size of the messages; column 14, table I; "processing data flow

and functions"; column 4, lines 15 – 24, "via software modules called agents";

column 8, lines 34 – 57, correlates to worker objects).

Regarding claims 15, 26, 34, Liebowitz et al. disclose the method,

system of claimed wherein the step of delivering the messages formed within one

of the worker objects including the step of delivering the messages formed within

the one worker object to the underlying layer based on a parameter of the one

worker object that affects the rate at which the messages are delivered to the

underlying layer ("FAD examines each frame in accordance with the high level

application protocol corresponding to the source of that frame " correlates to

delivering the messages formed within the one worker object to the underlying

layer based on a parameter of the one worker object that affects the rate; column

6, lines 16 – 31); "processing data flow and functions"; column 4, lines 15 – 24,

"via software modules called agents"; column 8, lines 34 – 57, correlates to

worker objects).

Regarding claim 16, 27, 35, 56, Liebowitz et al. disclose wherein the step

of delivering the messages formed within the one worker object to the underlying

layer based on the parameter of one worker object that affects the rate at which

the messages are delivered to the underlying layer includes the step of using a

time between calls parameters ("FAD examines each frame in accordance with

the high level application protocol corresponding to the source of that frame "

correlates to delivering the messages formed within the one worker object to the

underlying layer based on a parameter of the one worker object that affects the

rate; col. 6, lines 16 – 31; ("sends a timing indicator to TMC indicating the precise

time that it can transmit a burst; at specified times of transmission; silence

intervals in voice conversations" correlates to a time between calls parameters;

col. 5, lines 50 – 67; col. 6, lines 46 – 51; col. 15, lines 21 – 28; "processing data

flow and functions"; column 4, lines 15 – 24, "via software modules called

agents"; column 8, lines 34 – 57).

Regarding claims 17, 29, 57, Liebowitz et al. disclose the system of

transmitting data through a communication link having a bandwidth using a

plurality of communication connections ("prioritizes data into bursts using a

fragmentation protocol, and organizes bursts in at least one of a plurality of lots

constituting a time division multiple access (TDMA) frame,..and dynamic

assignment of slots depends on the committed information rates (CIR)"

correlates to the system of transmitting data through a communication link having

a bandwidth using a plurality of communication connections; col. 2, lines 40 – 62,

Fig. 7B, Fig. 2, col. 5, lines 58 – 64), the system comprising: a communication

object that distributes the data amongst the plurality of communication

connections ("creates an outgoing data queue corresponding to each user

access device for storing data received therefrom via a corresponding Frame

Handler module; Fig. 4, col. 4, lines 35 – 50; Fig. 4, element 66 FAD correlates to

a communication object); a plurality of worker objects ("creates an outgoing data

queue corresponding to each user access device for storing data received

therefrom via a corresponding Frame Handler module" interpreted as a plurality

of worker objects; Fig. 4, col. 4, lines 35 – 50), wherein each worker object is

associated with one of the communication connections and form messages using

the data distributed to the communication connection associated with that worker

object and a parameter of that work object ("collection of fragments is called the

payload" correlates to forming messages using the distributed data within each

worker object, and recited "payload header which identifies the location of each

fragment" as a parameter of that worker object; col. 4, lines 52 – 67), wherein the

communication object partitions the data to form a plurality of partitioned data

streams prior to distributed the data amongst the plurality of communication

connections ("real time data and non real time data" correlates to partitioning the

data based on a type of data; col. 5, lines 7 – 22); and wherein the

communication object establishes a one-to-one correspondence between the

plurality of partitioned data streams and the plurality of worker objects

("processing data flow and functions"; col. 4, lines 15 – 24, lines 35 – 50 "via

software modules called agents"; "point-to-point connection"; col. 16, lines 40 –

46).

Liebowitz et al. do not disclose explicitly each worker object delivers the

messages formed within that worker object to an underlying layer of the plurality

of communication connections so that each communication connection uses no more than a predetermined portion of bandwidth allocated to that communication connection.

Toporek et al. teach each worker object delivers the messages formed within that worker object to an underlying layer of the plurality of communication connections so that each communication connection uses no more than a predetermined portion of bandwidth allocated to that communication connection ("the information goes through the transport layer (e.g. TCP) and then through the IP layer which is the networking layer....." interpreted as delivering the messages to an underlying layer of the plurality of communication connections so that each communication connection uses no more than a predetermined portion of the bandwidth; Fig. 2, col. 10, lines 21 – 67; col. 17, lines 34 – 52).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Liebowitz et al. to include the features of each worker object delivers the messages formed within that worker object to an underlying layer of the plurality of communication connections so that each communication connection uses no more than a predetermined portion of bandwidth allocated to that communication connection as taught by Toporek et al. in order to provide a method for managing memory for buffering information communicated over an internet connection established across a satellite link (as suggested by Toporek et al., see col. 3, lines 7 – 10).

Regarding claim 32, Liebowitz et al. disclose the system of claimed

wherein each of the plurality of worker processes is based on a worker object

("created several burst buffers depending on the amount of data received from

the user access devices via Frame Handler module" interpreted as the plurality of

worker processes is based on a worker object; Fig. 3, Fig. 4, col. 4, lines 32 –

50).

Regarding Claims 38, 49, Liebowitz et al. disclose the system for

transmitting data through a communication link comprising: a communication

station having a processor and a memory communicatively coupled to the

processor ("a processor having a digital memory device" correlates to having a

processor and a memory communicatively coupled to the processor; col. 21,

lines 33 – 39), wherein the processor is programmed to provide a plurality of

work objects that each ("said processor being operable to generate bursts using

data received" correlates to programmed to provide a plurality of work objects;

"processing data flow and functions"; col. 4, lines 15 – 24), forms messages

using one of a plurality of partitioned data streams and a parameter of the worker

objects ("collection of fragments is called the payload" as forming messages

using the distributed data within each worker object, and recited "payload header

which identifies the location of each fragment" as a parameter of that worker

object; col. 4, lines 52 – 67); and wherein the set of communication connection

parameters include a time between calls parameter ("sends a timing indicator to

TMC indicating the precise time that it can transmit a burst; at specified times of

transmission; silence intervals in voice conversations" correlates to a time

between calls parameters; col. 5, lines 50 – 67; column 6, lines 46 – 51; column

15, lines 21 – 28; column 14, Table I).

Liebowitz et al. also disclose instantiates a separate communication

connection through the communication (col. 5, lines 18 – 28; and recited "said

processor being operable to generate bursts using data received" correlates to

programmed to provide a plurality of work objects that each instantiates a

separate communication connection through the communication link; col. 21,

lines 33 – 39; 51 – 65).

Liebowitz et al. also do not disclose a separate communication connection

through the communication link and wherein each of the plurality of worker

objects includes a set of communication connection parameters that are uniquely

configurable to determine the manner in which the data is sent to an underlying

layer of the communication link.

Toporek et al. teach a separate communication connection through the

communication link and wherein each of the plurality of worker objects includes a

set of communication connection parameters that are uniquely configurable to

determine the manner in which the data is sent to an underlying layer of the

communication link ("the information goes through the transport layer (e.g. TCP)

and then through the IP layer which is the networking layer….." interpreted as

delivering the messages to an underlying layer of the plurality of communication

connections so that each communication connection uses no more than a

predetermined portion of the bandwidth; Fig. 2, col. 10, lines 21 – 67; col. 17,

lines 34 – 52).

Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was made to modify the teachings of Liebowitz et al. to

include the features of a separate communication connection through the

communication link and wherein each of the plurality of worker objects includes a

set of communication connection parameters that are uniquely configurable to

determine the manner in which the data is sent to an underlying layer of the

communication link as taught by Toporek et al. in order to provide a method for

managing memory for buffering information communicated over an internet

connection established across a satellite link (as suggested by Toporek et al.,

see col. 3, lines 7 – 10).

Regarding Claim 39, Liebowitz et al. disclose the system claimed

wherein the communication station is a sending communication gateway (Fig 5,

elements 1, 2, 3 interpreted as sending communication gateway; Fig. 4, col. 6,

lines 46 – 55).

Regarding Claim 40, Liebowitz et al. disclose the system of claimed

wherein the communication station is a receiving communication gateway

(element "terminal" interpreted as a receiving communication gateway; Fig. 2,

col. 3, lines 58 – 67).

Regarding Claim 41, Liebowitz et al. disclose the system claimed wherein each of the separate communication connection using a connection-oriented communication protocol ("to assign a fixed and guaranteed bandwidth to a PVC" interpreted as using a connection-oriented communication protocol; Fig. 8, col. 16, lines 33 – 42, also "TCP/IP" correlates to separate communication connection using a connection-oriented communication protocol, col. 2, lines 22 – 24).

Regarding claim 53, Liebowitz et al. disclose claimed wherein the step of uniquely configuring the set of communication parameters (col.14, Table I) uniquely associated with each of the worker processes includes the steps of configuring a message size parameter for each of the worker processes ("the size of the burst buffer is set by the network-wide parameter, 'packet.length'"; col. 4, lines 66 – 68; "formats queue size information, as well as stream request information" interpreted as setting a message size parameter; col. 6, lines 27 – 33; col. 14, table I; "the size of the burst buffer is set by the network-wide parameter"; col. 4, lines 66 – 68; "formats queue size information, as well as stream request information" correlates to setting a message size parameter; column 6, lines 27 – 33) and configuring a time between calls parameters for each of the worker processes ("sends a timing indicator to TMC indicating the precise time that it can transmit a burst; at specified times of transmission; silence intervals in voice conversations" interpreted as a time between calls parameters; col. 5, lines 50 – 67; col. 6, lines 46 – 51; col. 15, lines 21 – 28).

Regarding Claim 55, Liebowitz et al. disclose the method claimed

wherein the step of uniquely configuring the set of communication connection

parameters uniquely associated with each of the worker processes including the

steps of configuring the sets of communication connection parameters (col. 14,

Table I) to provide a reserved bandwidth for retransmission ("transmission

capacity provided by the number of slots per time frame which the terminal has

permanently reserved" interpreted as to provide a reserved bandwidth for

retransmission; col. 11, lines 41 – 45).

Response to Arguments

4.   Applicant's arguments filed on 8/01/2008 with respect to claims 1, 3 – 6, 8

– 18, 22 – 32, 34 – 41, 43 – 50, 52 – 57 have been fully considered but they are

not persuasive.

Regarding Independent Claims 1, 17, 29, 38 and 49, applicant argues

Liebowitz et al. does not disclose the tasks associated with the worker objects (or

processes), such as establishing a worker object for each one of the

communication connections, distributing data amongst worker objects and

forming messages using worker objects. Examiner respectfully disagrees.

After further thoroughly consideration and assertion of the reference

Liebowitz, Examiner contends reference Liebowitz et al. suggest the tasks

associated with the worker objects (or processes), such as establishing a worker

object for each one of the communication connections, distributing data amongst

worker objects and forming messages using worker objects. Examiner interprets

applicant's claimed subject matter "worker objects" are merely processes or

tasks to be performed by the terminal. Examiner interpreted establishing a

worker object for each one of the communication connections as "creates an

outgoing data queue corresponding to each user access device for storing data

received therefrom via a corresponding Frame Handler module" see Fig. 3, Fig.

4, col. 4, lines 35 – 50); and "modules to support different formats and a

multiplicity of communication ports, ..creates an outgoing data queue

corresponding to each user access device for storing data received therefrom as

distributing the data amongst the worker objects, see Fig. 3, Fig. 4, col. 4, lines

32 – 47); and "collection of fragments is called the payload" and "payload header

which identifies the location of each fragment" as forming messages using the

distributed data within each worker object and a parameter of that worker object,

see col. 4, lines 52 – 67);

On page 13 of the applicant's remark, applicant then argues accordingly,

while individual aspects of Liebowitz et al. may appear to disclose various

features of independent claims 1, 17, 29, 38 and 49, Liebowitz eta]. does not

disclose the same arrangement of the features as provided in independent

claims 1, 17, 29, 38 and 49, because there is no aspect of Liebowitz et al. that

corresponds to the recited worker objects (or processes), in other words, the data

queues 63 and Frame Handlers 64 of Liebowitz et al., and the tasks associated

therewith, do not correspond to the recited worker objects (or processes), and

the tasks associated therewith. Indeed, because the data queues 63 and Frame

Handlers 64 do not correspond to communication connections to deliver the data

as messages to the satellite 14 (which has been acknowledged as much in the

action; see e.g., page 4), it does not stand to reason that features associated

with receiving data would correspond with worker objects (or processes)

associated with delivering data. Examiner respectively disagrees.

Examiner contends reference Liebowitz et al. teach the arrangement of

the features as provided in independent claims 1, 17, 29, 38 and 49, and there is

aspect of Liebowitz et al. that corresponds to the recited worker objects (or

processes), see Fig. 3 and Fig. 4. As stated previous, worker objects are

interpreted as processes or tasks to be performed by the terminal. Examiner

interpreted establishing a worker object for each one of the communication

connections as "creates an outgoing data queue corresponding to each user

access device for storing data received therefrom via a corresponding Frame

Handler module" and hence the data queues 63 and Frame Handlers 64

correlate to communication connections to deliver the data as messages to the

satellite 14see Fig. 3, Fig. 4, col. 4, lines 35 – 50.

Regarding claims 17 and 29, applicant further argues reference Liebowitz

et al. does not disclose or suggest a one-to-one correspondence between the

plurality of worker processes and the plurality of partitioned data streams. In

particular, the action first appears to cite the data queues 63 (or the Frame

Handlers 64) as the recited worker objects or worker processes, and then

proceeds to cite the agents of Liebowitz et al. as the recited worker objects.

Examiner respectfully disagrees.

Examiner contends reference Liebowitz et al. suggest a one-to-one

correspondence between the plurality of worker processes and the plurality of

partitioned data streams.

Examiner interpreted one-to-one correspondence between the plurality of

worker processes and the plurality of partitioned data streams as "processing

data flow and functions within the PCD…create an outgoing data queue …"; see

col. 4, lines 15 – 24, lines 35 – 50; "point-to-point connection"; col. 16, lines 40 –

46.

Regarding Independent claims 38 and 49, on page 15 of the applicant's

remark, applicant then argues reference Liebowitz et al. does not disclose or

suggest a time between calls parameter as one of a uniquely configurable set of

parameters for each worker object or worker process. In particular, the action

now appears to cite the burst queues 68 as the recited worker objects (or

processes), given the burst queues 68 store fragments using the data from the

user access devices 42 for burst transmissions from the TDMA modem 54 as

controlled by the TDMA modem controller (TMC) 76. (See action, pages 13 and

14 quoting col. 21, lines 33-39 which reads in part "said processor being

operable to generate bursts using data received from said user access devices

…" as compared with col. 4, lines 51- 67 and col.5, lines 49-57). Again, this is

inconsistent with the earlier reliance on the data queues 63 (or Frame Handlers

64) as the recited worker objects (or processes), and demonstrates that no one

element of Liebowitz et al. corresponds to the recited worker objects (or

processes). Examiner respectfully disagrees.

Examiner contends reference Liebowitz et al. suggest a time between

calls parameter as one of a uniquely configurable set of parameters for each

worker object or worker process.

Examiner interpreted a time between calls parameter as one of a uniquely

configurable set of parameters as "sends a timing indicator to TMC indicating the

precise time that it can transmit a burst; at specified times of transmission;

silence intervals in voice conversations" see col. 5, lines 50 – 67; col. 6, lines 46

– 51; col. 15, lines 21 – 28).

Refer to page 17of applicant's remark, applicant further argues Toporek et

al. does not disclose any mechanism for establishing a worker object (or

process) for each one of a plurality of communication connections, nor has

Toporek et al. been cited for this purpose. However, as a consequence, while

Toporek et al. discloses a method of controlling flow of information over a

satellite communication link using a plurality of communication connections,

Toporek et al. does not disclose a plurality of worker objects (or processes)

where each of the plurality of worker objects is capable of forming and delivering

a message to one of the plurality of communication connections. Examiner

respectfully disagrees.

Examiner contends reference Toporek et al. suggest implicitly a plurality of

worker objects (or processes) where each of the plurality of worker objects is

capable of forming and delivering a message to one of the plurality of

communication connections. Examiner interpreted a plurality of worker objects

(or processes) where each of the plurality of worker objects is capable of forming

and delivering a message to one of the plurality of communication connections

as the collection of information comprising the XTP state at an end system is

called a context. This information represents one instance of an active

communication between two (or more) XTP endpoints. A context should be

created, or instantiated, before sending or receiving XTP packets. There may be

many active contexts at an end system, one for each active conversation or

message ...., see col. 8, lines 51 - 63. The reference Toporek et al. applied is to

remedy the deficiencies of reference Liebowitz et al. for delivers the messages

formed within that worker object to an underlying layer of the plurality of

communication connections so that each communication connection uses no

more than a predetermined portion of bandwidth allocated to that communication

connection, see Fig. 2, col. 10, lines 21 – 67; col. 17, lines 34 – 52

Conclusion

5.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of

time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire

THREE MONTHS from the mailing date of this action. In the event a first reply is

filed within TWO MONTHS of the mailing date of this final action and the advisory

action is not mailed until after the end of the THREE-MONTH shortened statutory

period, then the shortened statutory period will expire on the date the advisory

action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will

the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

6.   Any inquiry concerning this communication or earlier communications from

the examiner should be directed to Andrew C. Lee whose telephone number is

(571) 272-3131. The examiner can normally be reached on Monday through

Friday from 8:30am - 5:00pm.

        If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax

phone number for the organization where this application or proceeding is

assigned is 571-273-8300.

        Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status information

for published applications may be obtained from either Private PAIR or Public

PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-

free). If you would like assistance from a USPTO Customer Service

Representative or access to the automated information system, call 800-786-

9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew C Lee/
Examiner, Art Unit 2419
<11/23/2008:1QY09>

/Edan Orgad/

Supervisory Patent Examiner, Art Unit 2419